Compare of microorganisms isolated from urine culture of diabetic and non- diabetic patients and antibiogram results in hospitalized patients in ardabil Imam Khomeini hospital from 1391- 1393

Abstract

Introduction: urinary tract infection is a common infection of human beings which is especially prevalent in diabetic patients. This study was conducted to compare isolated microorganisms in urine culture of diabetic and non-diabetic patients and their antibiotic resistance pattern in Emam Khomeini Hospital, Ardabil, in 2012-2014.

Materials and methods: This cross sectional study was intended to compare isolated microorganisms in urine culture of diabetic and non-diabetic patients suffering urinary tract infections and their antibiotic resistance pattern. For this purpose, medical records of all patients diagnosed with urinary tract infection in Emam Khomeini Hospital, Ardabil in 2012-2014 were investigated and necessary data including age, gender, suffering from diabetes or not, type of isolated microorganism an d antibiotic resistance pattern were extracted form medical records and were entered into information collecting forms.

Results: The most common isolated microorganism of both diabetic (58.1%) and non-diabetic (53.6%) patients with UTI consisted of E-coli. Other microorganisms in diabetic patients included: fungi (19.4%), Staphylococcus aureous (8.4%), Staphylococcus saprophyticus (4.8%), Coagulase negative Staphylococcus (4.8%), enterococcus (3.2%) and pseudomonas (4.8%). Other microorganisms in non-diabetic patients included: fungi (19.4%), coagulase negative staphylococcus (7.1%), enterococcus (7.1%), acinetobacter (5.6%), Kelebsiella (4.8%), staphylococcus epidermidis (1.2%) and pseudomonas (1.2%). Among diabetic patients highest E. coli (the most common isolated microorganism) susceptibility is to polymyxin (100%), tetracycline (100%) and amikacin (88.9%). Highest E. coli resistance was to cotrimoxazole (100%), ofloxacin (100%) and ampicillin (87.5%). While among non-diabetic patients, highest E. coli susceptibility was to amikacin (90.4%), nitrofurantoin (86%), cefoxitin (85.3%) and gentamycin (82.1%)

Conclusion: Current study indicates common pathogens in UTI in diabetic and non-diabetic patient and their antibiotic resistance patterns in Ardabil so that these patients can be treated with information on susceptibility and resistance patterns to prevent drug resistance and treatment failures which may result in complications of the infections.

Key Words: Urinary Tract Infection, Diabetes, Microorganism, Antibiotic Resistance.